March 2009 Monthly Report

In March several notable activities have taken place. We completed the development and tested the GTAS Web Site http://www-sdd.fsl.noaa.gov/~fxa/FXC/GTAS/index.html We will use the Web Site to post project plans, status information and project planning and EVM metrics.

GSD completed the:
GTAS Management Plan http://www-sdd.fsl.noaa.gov/~fxa/FXC/GTAS/Published_Documentation/GTAS_FEMA_Plan-1-1.pdf

GTAS Training Plan http://www-sdd.fsl.noaa.gov/~fxa/FXC/GTAS/Published_Documentation/GTASTrainingPlanvFinal_090320.pdf Work has also begun on the GTAS Design and Implementation Plan, the Project Schedule, and the Risk Management Plan

High Performance computing nodes
We have been allocated processing nodes on NOAA's high-performance computer to begin developing the high- resolution weather model that will be used to initialize the GTAS toxic plume model. While NOAA already runs weather models as part of its forecast operations, the high-resolution model better emulates what NOAA will be running for operations 2 to 3 years in the future. This will provide the toxic plume model with 2-km wind and atmospheric stability information vs the 12-km model used operationally today. NOAA allocates these computer resources judiciously, evaluating the products and services that will be supported, other agencies involved, and its future application to operations.

Toxic Plume Model Upgrades
The toxic plume model that was implemented on GTAS in 2007 is in older version that needed to be upgraded to the NOAA's Air Resources Lab (ARL) current version. Upon reinstalling the plum model on our GTAS development machine we discovered that there were a few problems with getting the model to run and required that we do file format and compiler upgrades on our machines. We determined also that the atmospheric data ingest software on the toxic plume model will need to be changed to read the high-resolution 2-km atmospheric data (in our previous work, we used the 12-km atmospheric model). We requested a design document from ARL of the plume model to assist in our efforts to complete the upgrade. Two ARL plume model developers came to GSD to help with the integration of the new version of the model into GTAS. Work continues to complete the updates necessary.

Data Server Acquisition
GTAS Dell data server hardware has been purchased and delivered. Two identical servers have been received; one for Southern Region Headquarters and the other one for GSD. The server for Southern Region Headquarters was shipped from Dell directly to SRH computing center. IT staff at SR will load the operating system on the server and we will load the GTAS server software.

New Project Personnel
Three new employees were added to the project to meet our technical, metrics reporting and documentation requirements.

Greg Pratt is our new Project Technical Lead. Greg has done similar work for another project involving volcanic plume tracking in Alaska to support aviation operations. See http://www-ad.fsl.noaa.gov/asdad/projects/vact/

Kelli Werlinich has been added to the project to develop and implement project planning and metrics tracking documents. These documents will be posted and routinely updated on the GTAS web site.

Leigh Cheatwood has been added to the project to provide GIS map background support to the GTAS client, GTAS User Manual development and User Training documents. Leigh will actively participate in training NWS forecasters and state and local government emergency managers on how to use the GTAS client.

Related Southern Region Activity
The Melbourne Florida WFO has a large presence with its emergency management community. They support Cape Kennedy emergency officials and the local county government surrounding the Cape during space shuttle, rocket launches and fueling operations. NWS Southern Region Headquarters informed us that the Melbourne WFO and respective emergency preparedness community would be interested in participating in future GTAS deployments.